



FEDERAL LAW ENFORCEMENT  
WIRELESS USERS GROUP  
WASHINGTON, D.C.



October 10, 2000

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
TW-A325  
445 Twelfth Street, SW  
Washington, DC 20554

**Re: Reply Comments in response to Comments filed by other parties, In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communication Requirements Through the Year 2010, Establishment of Rules and Requirements for Priority Access Service, Fourth Notice of Proposed Rule Making, in WT Docket No. 96-86**

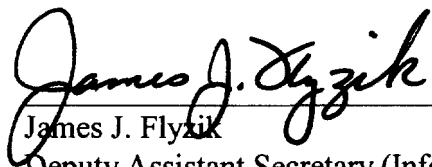
Dear Ms. Salas:

On behalf of the Federal Law Enforcement Wireless Users Group (FLEWUG) and pursuant to Section 1.419 of the Commission's rules, 47 C.F.R. § 1.419 (1999), enclosed herewith for filing are an original and four (4) copies of the FLEWUG's Comments in the above-referenced proceeding.

Kindly date-stamp the additional, marked copy of this cover letter and return it in the envelope provided.

Should you require any additional information, please contact the undersigned.

Respectfully submitted,

  
James J. Flyzik

Deputy Assistant Secretary (Information Systems)  
and Chief Information Officer  
Department of the Treasury

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Before the  
Federal Communications Commission  
Washington, DC 20554

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In the Matter of )  
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The Development of Operational, Technical, )  
and Spectrum Requirements for Meeting ) WT Docket No. 96-86  
Federal, State, and Local Public Safety )  
Communications Requirements Through )  
the Year 2010 )  
)  
Establishment of Rules and Requirements )  
for Priority Access Service )

**FEDERAL LAW ENFORCEMENT WIRELESS USERS GROUP'S**  
**REPLY COMMENTS IN RESPONSE TO COMMENTS FILED BY OTHER PARTIES**  
**IN RESPONSE TO THE FOURTH NOTICE OF PROPOSED RULEMAKING**

1. The Federal Law Enforcement Wireless Users Group (FLEWUG)<sup>1</sup> respectfully submits the following Reply Comments in response to Comments filed by other parties regarding the Commission's Fourth Notice of Proposed Rulemaking (NPRM), *In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communication Requirements Through the Year 2010, Establishment of Rules and Requirements for Priority Access Service*.<sup>2</sup> In the Fourth NPRM, the Commission requests comment on the report of the Public Safety National Coordination Committee (NCC) on the technical and operational standards for interoperability frequencies in the 764-776 megahertz (MHz) and 794-806 MHz frequency bands (the 700-MHz band)—the new public safety band.

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<sup>1</sup> The FLEWUG is composed of law enforcement and public safety officials from the Department of the Treasury, Department of Justice, Department of the Interior, Department of Agriculture, Department of Defense, Department of Health and Human Services, United States Postal Service, United States Postal Inspection Service, National Telecommunications and Information Administration, Federal Emergency Management Agency, Internal Revenue Service, Federal Bureau of Investigation, United States Secret Service, United States Coast Guard, United States Capitol Police, Drug Enforcement Administration, United States Park Police, Immigration and Naturalization Service, United States Customs Service, Bureau of Alcohol, Tobacco, and Firearms, United States Mint, National Communications System, Defense Information Systems Agency, National Security Agency, Federal Law Enforcement Training Center, Bureau of Engraving and Printing, United States Marshals Service, National Institute of Standards and Technology, United States Forest Service, United States Fish and Wildlife Service, Federal Bureau of Prisons, Bureau of Land Management, and National Park Service.

<sup>2</sup> Fourth NPRM WT Docket 96-86, rel. August 2, 2000.

## **I. BACKGROUND**

2. Given its mission, the FLEWUG has a clear interest in the proceedings to develop the rules and procedures relating to the use and management of the recently reallocated spectrum in the 700-MHz band. Accordingly, the FLEWUG is pleased to continue its participation in these proceedings by offering these reply comments to the Fourth NPRM.

3. Generally encouraged by the efforts of the NCC and the Commission to establish effective, well-considered rules for the operation of the 700-MHz band, the FLEWUG emphasizes the need for the Commission to carefully consider the FLEWUG's previous Comments and the Comments of other parties when developing rules for the 700-MHz band. In this response, the FLEWUG wishes to specifically address these parties' positions regarding the issues of the proposed band plan, subscriber equipment licensing, narrowband digital voice standards, narrowband channel efficiency standards and receiver protection standards, and interfaces.

4. Along with Nokia, the FLEWUG cites the conclusions of the Public Safety Wireless Advisory Committee (PSWAC).<sup>3</sup> Based on the PSWAC report recommendations, an additional 73.5 MHz of spectrum remains to be allocated for public safety service by 2010 in addition to the 24 MHz of 700-MHz band already allocated under the Balanced Budget Act of 1997.

## **II. BAND PLAN AND GUARD BANDS**

5. The NCC has proposed a revised band plan assigning four contiguous 6.25-kHz channels to each interoperability channel. The center channel set of each allocation would constitute the 12.5-kilohertz (kHz) interoperability channel. When these channels are aggregated with the center channel set to form a 25-kHz trunked channel, the entire four-channel block would become an interoperability channel. When not aggregated, the two 6.25-kHz adjacent channels would become interoperability guard channels. This plan would require the Commission to change the designation of the next-adjacent 6.25-kHz channels on either side of the center channel sets to "Interoperability/Interoperability Guard" channels.<sup>4</sup>

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<sup>3</sup> See Nokia Comments mentioning the PSWAC report at pp. 3.

<sup>4</sup> NCC Comments at pp. 2-3.

6. The FLEWUG supports the revised band plan proposed by the NCC. This plan would allow for more efficient and economical use of the 700-MHz band with less interference between interoperability channels or with adjacent general use or reserve channels.

### **III. SUBSCRIBER EQUIPMENT LICENSING**

7. The FLEWUG continues to support the NCC recommendation for licensing subscriber equipment on interoperability channels. The FLEWUG remains convinced, based on the experience of its members nationwide and particularly in light of emerging technologies,<sup>5</sup> that unless the Commission maintains direct tracking and control of the licensing of all units through the RPCs or other entities, potential problems could arise from the accidental or intentional misuse of “blanket” licenses.

8. On this same issue, the FLEWUG disagrees with the National Public Safety Telecommunications Council (NPSTC), which claims that memoranda of understanding (MOU) signed by system users would be sufficient for licensing and therefore recommends no specific requirement for subscriber licenses for agencies operating systems in the 700-MHz band.<sup>6</sup> The FLEWUG also opposes the State of Florida’s assertion that subscriber licensing would not improve the effectiveness of interoperability communications and would likely hinder, rather than promote, acceptance of the interoperability system by local agencies.<sup>7</sup> In this regard, the FLEWUG believes the added element of security and oversight associated with direct licensing of individual subscriber equipment would substantially outweigh the administrative burden of compliance with the licensing requirements.

### **IV. NARROWBAND DIGITAL VOICE STANDARDS FOR INTEROPERABILITY CHANNELS**

9. The FLEWUG joins the majority of Commenters in supporting the development of Project 25 Phase I technology as the digital standard.<sup>8</sup> The public safety community and the wireless industry have been studying the issue of standards for 10 years. After thorough investigation and consideration of all possible alternative digital standards and based

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<sup>5</sup> See FLEWUG Reply Comments, *In the Matter of Inquiry Regarding Software Defined Radios*, ET Docket 00-47, July 17, 2000, at paras. 13–17.

<sup>6</sup> NPSTC Comments at pp. 4–5.

<sup>7</sup> State of Florida Comments at pp. 3.

<sup>8</sup> See Comments of NCC, APCO.

substantially on the experience of the FLEWUG and other representatives of the public safety community that have already voted to adopt Project 25 Phase I, the NCC chose the Project 25 Phase I standard, which would allow use of the 700-MHz band as quickly and efficiently as possible.

10. The Project 25 Phase I system is American National Standards Institute (ANSI) certified. Project 25 Phase I equipment can be available in a timely fashion and uses C4FM modulation, which does not require linear power output amplification. On the other hand, the Terrestrial Trunked Radio System (TETRA), advocated by a minority of Commenters, is not an ANSI-certified standard. In addition, because it requires linear power amplifiers, the TETRA system needs more base stations and has inferior range and building-penetration capability. For these reasons, the FLEWUG continues to support the adoption of the Project 25 Phase I standard in its entirety.

11. Regarding future migration to 6.25-kHz channels, the NCC recommends that land-mobile digital technologies be allowed to mature to the point that “one-voice-per-6.25-kHz” performance is widely available on the general-use channels before considering the selection of a “one-voice-per-6.25-kHz” standard for operations on the interoperability channels.<sup>9</sup> The FLEWUG concurs and recommends that the status of technological developments in the 700-MHz band be re-evaluated in the next few years, with the goal of establishing a “date certain” for 6.25-kHz migration that is economically and technically viable for the public safety community.

12. The FLEWUG supports the Commission’s move toward establishing mandatory requirements for the interoperability channels. As the Association of Public-Safety Communications Officials—International (APCO) has accurately observed, Project 25 equipment could be available very quickly and put to use in the 700-MHz band in those areas where some or all of the public safety spectrum is unaffected by existing TV stations.<sup>10</sup> The only real option for the Commission is to select a common mode available today that can be used as a “second” mode for future 6.25-kHz radios to provide full interoperability across competing

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<sup>9</sup> NCC Comments at p. 11.

<sup>10</sup> APCO Comments at p. 4.

and otherwise incompatible technologies.<sup>11</sup> The FLEWUG supports APCO's reasoning in this regard.

13. Conversely, the FLEWUG opposes the North American TETRA Forum's (NATF) position that the Commission should delay its decision on the mandatory requirements of the interoperability channels.<sup>12</sup> The NATF cites the purported benefit from technology developments during the next 5 years and suggests that Project 25 be adopted only as an interim, non-mandatory specification for the interoperability channels. The NATF notes that the TETRA standard is already being used throughout the world and meets current spectrum efficiency requirements. The FLEWUG reiterates its position that a standard must be adopted that allows for development, type-acceptance, and implementation of equipment. The FLEWUG again notes, as discussed above, that TETRA is not an ANSI-approved standard and that Project 25 has been accepted by the NCC as the appropriate standard.

14. Public Safety Representatives, claiming no vested interest in either standard, have also argued in favor of the adoption of TETRA. They point out that (1) the choice of Project 25 means a sacrifice of the spectrum efficiency objective, at least for the interoperability channels, and (2) cost of the Project 25 equipment, which is greater than the TETRA equipment, may be adversely impact the interoperability of small, rural, and volunteer services.<sup>13</sup> They propose two alternatives: (1) allow interim analog operation at 12.5 kHz with a reasonable phase-out date, or (2) recognize the TETRA standard, which meets the 6.25-kHz voice channel equivalency standard and is based on the European Telecommunications Standards Institute (ETSI) standard.<sup>14</sup> The FLEWUG once again notes TETRA's lack of ANSI acceptance or widespread use in the North American market and the adoption of Project 25 throughout the public safety community including the FLEWUG and the NCC.

15. APCO has further proposed a specific five-step migration plan for the 700-MHz public safety band starting with immediate adoption of Project 25 Phase I as the interoperability

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<sup>11</sup> *Id.*

<sup>12</sup> NATF Comments at p. 7.

<sup>13</sup> Public Safety Representatives Comments at p. 12-13.

<sup>14</sup> *Id.*

standard.<sup>15</sup> APCO believes adoption of such a plan would create incentives for the eventual introduction of 6.25-kHz capable radios, without requiring a specific 6.25-kHz technology. According to APCO, to maintain interoperability, those 6.25 kHz radios would also need to have the Project 25 Phase I mode for 12.5-kHz operation on the interoperability channels.<sup>16</sup> The International Association of Chiefs of Police (IACP) explicitly supports the APCO migration plan.<sup>17</sup> As stated above, the FLEWUG likewise expresses its support for the measured but eventual migration to 6.25-kHz channels.

## **V. NARROWBAND CHANNEL EFFICIENCY STANDARDS**

16. The FLEWUG continues to support the Project 25 Phase I suite of standards, including the standard for narrowband data transmission. The FLEWUG, along with EF Johnson, believes that choosing an interoperability standard other than 12.5 kHz at this time would create technical challenges for manufacturers that would unnecessarily delay the use of the 700-MHz band. As already observed by the NCC and other Commenters, including the FLEWUG, inasmuch as 6.25-kHz equipment is not currently available, the 12.5-kHz equipment should be used until such time as 6.25-kHz equipment is available and can economically replace 12.5-kHz equipment at the end of its life cycle.

17. However, the FLEWUG continues to believe that while the 12.5-kHz efficiency is acceptable at the present time, migration to a 6.25-kHz standard by a “date certain” remains the ultimate goal. Keeping this in mind, the present use of 12.5-kHz equipment should not discourage industry development of 6.25-kHz technology.

## **VI. RECEIVER STANDARDS AND INTERFACES**

18. Along with the majority of Commenters,<sup>18</sup> the FLEWUG supports the establishment of receiver standards in the 700-MHz band. Such standards would help to reduce possible harmful interference in the public safety band and increase reliability and interoperability of radios throughout the public safety system. Unlike EF Johnson, the FLEWUG does not believe that simple reliance on market forces will achieve a comparable receiver standard.

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<sup>15</sup> APCO Comments at pp. 7–10.

<sup>16</sup> *Id.*

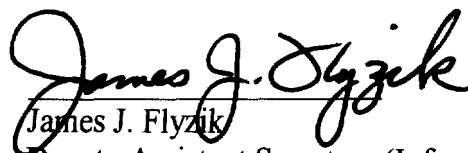
<sup>17</sup> IACP Comments at pp. 3–5.

<sup>18</sup> See Comments of APCO, NCC, Orange County (CA).

## VII. CONCLUSION

19. The FLEWUG supports those Commenters who advocate the revised band plan proposed by the NCC in their Comments on the Fourth NPRM.
20. The FLEWUG supports the NCC recommendation for individual licensing of subscriber equipment on interoperability channels.
21. The FLEWUG continues to side with those Commenters who advocate exclusive adoption of Project 25 Phase I interoperability standards because of the availability of equipment and acceptance by the NCC, the ANSI, and a substantial part of the public safety community.
22. The FLEWUG joins with those Commenters who support the measured but certain migration to 6.25-MHz channels by a "date certain" that is economically and technically viable for the public safety community.
23. In the interests of reducing harmful interference and increasing reliability and interoperability in the public safety band, the FLEWUG concurs with those Commenters who urge the Commission to mandate the establishment of receiver protection standards.
24. The FLEWUG acknowledges the efforts of the NCC and other parties who have provided Comments to the Fourth NPRM, or who have otherwise aided in the development of recommendations set forth in the Fourth NPRM and requests the Commission consider its Reply Comments in light of the Comments of others.

Respectfully submitted,



James J. Flyzik  
Deputy Assistant Secretary (Information Systems)  
and Chief Information Officer  
Department of the Treasury




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FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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the Year 2010	)	
	)	
Establishment of Rules and Requirements	)	
for Priority Access Service	)	

**CERTIFICATE OF SERVICE**

I, David E. Pickeral, Associate, Booz Allen & Hamilton Inc., 8283 Greensboro Drive, McLean, Virginia, 22102-3838, hereby certify that on this date I caused to be served, by first-class mail, postage prepaid (or by hand where noted) copies of the Federal Law Enforcement Wireless Users Group's Reply Comments in response to comments filed by other parties regarding the Commission's Notice of Proposed Rulemaking, *In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communication Requirements Through the Year 2010, Establishment of Rules and Requirements for Priority Access Service*, the original of which is filed herewith and upon the parties identified on the attached service list.

DATED at Fair Oaks, Virginia this 10<sup>th</sup> day of October 2000.

  
\_\_\_\_\_  
David E. Pickeral

## SERVICE LIST

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